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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,371	01/23/2004	Stephen Lau	3074/141	4459

7590 11/25/2005
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EXAMINER

DAGOSTA, STEPHEN M

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 11/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/762,371	LAU ET AL.	
	Examiner	Art Unit	
	Stephen M. D'Agosta	2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,9 and 11 is/are rejected.
- 7) ☒ Claim(s) 3-8,10 and 12-15 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 9 and 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Wilk US 6,643,124 and further in view of Ye US 6,796,734.

As per **claim 1**, Wilk teaches a palm-size foldable computing and communication assembly for personal users (figure 12 and C7, L45 teaches a "telephone-type computing device", PDA-phones are well known in the art as well, also see C4, L32-40)) assembly comprising:

a first folding set functioning as a foldable computer and telephone set made up of multiple folding segments, wherein a mobile phone, display screen and computer components are respectively installed (figures 12-18 show multiple designs for a folding computer-phone with phone, display and computing components); and

a second folding set made up of multiple folding segments, with a battery inside the device/folds (figures 12-18 show the foldable device having a display that folds out. The portable devices described by Wilk inherently require a battery to be located within the device) **but is silent on** functioning as a foldable membrane keyboard set, wherein a keyboard is respectively installed.

Ye teaches a keyless keyboard that unfolds into a keyboard of normal desktop keyboard size for easy use (abstract, figures 1-8, C1, L15-45 teaches PDA and cell phone).

It would have been obvious to one skilled in the art at the time of the invention to modify Wilk, such that it functions as a foldable membrane keyboard set, wherein a keyboard is respectively installed, to provide means for having a folding full-size keyboard that is compact.

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As per **claim 2**, Wilk teaches claim 1, wherein the first folding set is formed by a first, second, third and fourth segment, with hinges on top and bottom of adjacent segments interconnecting all the segments (figures 1-18 show many different designs whereby the device can be connected with hinges. The hinges are typically shown as allowing the device to open in an up/down manner or a side-to-side manner. Wilk's design uses a "longer" hinge which can run the length of two adjacent hinged pieces to securely fasten them together).

As per **claim 9**, Wilk teaches claim 2, wherein a large-screen display is mounted on the back panel of the second folding set when the second is folding set is fully expanded (see figures 1-18 which show a folding screen can be unfolded into many different configurations), **but is silent on** a touch keypad is mounted on the lower portion of the back panel of the fourth segment.

Ye teaches a folding keyboard that can be unfolded into many different segments (see figures 1, 4 and 8 which show the keyboard being unfolded into several different pieces, eg. four are shown in figure 4).

It would have been obvious to one skilled in the art at the time of the invention to modify Wilk, such that it has a touch keypad mounted on the lower portion of the back panel of the fourth segment, to provide means for having a full-size foldout keyboard.

As per **claim 11**, Wilk teaches claim 9, wherein a track ball is mounted on the lower portion of the front panel of the third segment of the second folding set (C5, L56 teaches a trackball being used, see figure 1, #60. The trackball can be placed virtually anywhere on the device and would be a design consideration).

Allowable Subject Matter

Claims 3-8, 10 and 12-15 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As per **claim 3**, the prior art alone or in combination does not teach “wherein a CCD camera is installed near the top inside the front panel of the first segment of the first folding set, two telephone earpieces are installed with one on each side of the CCD camera, a central mobile phone keypad with multiple keys is installed in the central portion of the front panel and microphone is installed on the lower portion of the front panel, and a display screen is installed between the CCD camera and the mobile phone keypad”.

Claim 4, the prior art alone or in combination does not teach “wherein a power switch is mounted in the upper portion of the right side panel of the first segment, and a floppy drive slot is formed in the center portion of the right side panel of the first segment, a volume control knob is mounted near the bottom, and a earphone jack and a microphone jack are mounted between the power switch and the floppy drive slot”.

Claim 5, the prior art alone or in combination does not teach “wherein two USB ports are fixed on the top portion of the left side panel on the fourth segment, a CD slot in the center, and a charging jack in the lower portion”.

Claim 6, the prior art alone or in combination does not teach “wherein a satellite receiver with router option and a credit card sensor slot are mounted on the top panel of the first segment, and an infrared transmitter port is mounted on the bottom panel of the fourth segment”.

Claim 7, the prior art alone or in combination does not teach “wherein an antenna and card reader are respectively installed on the top panel of the second segment and first segment on the first folding set”.

Claim 8, the prior art alone or in combination does not teach “wherein a first infrared port is mounted on the bottom of the fourth segment of the first folding set”.

Claim 10, the prior art alone or in combination does not teach “wherein when fully expanded the second folding set is a standard membrane keyboard, formed by a first, second, third and fourth segment interconnected by hinges, with multiple battery cells housed inside the four segments”.

Claim 12, the prior art alone or in combination does not teach “wherein a second infrared port is mounted on the top panel of the first segment of the second folding set”.

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Claim 13, the prior art alone or in combination does not teach "wherein the satellite receiver provides the function of satellite VOIP data transmission".

Claim 14, the prior art alone or in combination does not teach "wherein the satellite receiver provides the function of multicast streaming".

Claim 15, the prior art alone or in combination does not teach "wherein the satellite receiver provides the function of wireless VoIP data transmission".

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. Ye 2003/0106781
2. Riddiford US 2003/0124992
3. Miramontes US 2002/0072395
4. Riddiford US 6,587,675
5. Mochizuki et al. US 2004/0052044
6. Wicks et al. Des 406,587

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 571-272-7862. The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stephen D'Agosta
Primary Examiner

